

10 CFR 50.75(h)(2)

2002 Version

§ 50.75

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30 days of the following in regard to a licensed operator or senior operator:

(a) Permanent reassignment from the position for which the licensee has certified the need for a licensed operator or senior operator under § 55.31(a)(3) of this chapter;

(b) Termination of any operator or senior operator;

(c) Permanent disability or illness as described in § 55.25 of this chapter.

[52 FR 9469, Mar. 25, 1987, as amended at 60 FR 13616, Mar. 14, 1995]

§ 50.75 Reporting and recordkeeping for decommissioning planning.

(a) This section establishes requirements for indicating to NRC how a licensee will provide reasonable assurance that funds will be available for the decommissioning process. For power reactor licensees, reasonable assurance consists of a series of steps as provided in paragraphs (b), (c), (e), and (f) of this section. Funding for the decommissioning of power reactors may also be subject to the regulation of Federal or State Government agencies (e.g., Federal Energy Regulatory Commission (FERC) and State Public Utility Commissions) that have jurisdiction over rate regulation. The requirements of this section, in particular paragraph (c) of this section, are in addition to, and not substitution for, other requirements, and are not intended to be used, by themselves, by other agencies to establish rates.

(b) Each power reactor applicant for or holder of an operating license for a production or utilization facility of the type and power level specified in paragraph (c) of this section shall submit a decommissioning report, as required by § 50.33(k) of this part.

(1) The report must contain a certification that financial assurance for decommissioning will be (for a license applicant) or has been (for a license holder) provided in an amount which may be more but not less than the amount stated in the table in paragraph (c)(1) of this section.

(2) The amount to be provided must be adjusted annually using a rate at least equal to that stated in paragraph (c)(2) of this section.

(3) The amount must use one or more of the methods described in paragraph

(e) of this section as acceptable to the NRC.

(4) The amount stated in the applicant's or licensee's certification may be based on a cost estimate for decommissioning the facility. As part of the certification, a copy of the financial instrument obtained to satisfy the requirements of paragraph (e) of this section must be submitted to NRC.

(c) Table of minimum amounts (January 1986 dollars) required to demonstrate reasonable assurance of funds for decommissioning by reactor type and power level, P (in MWt); adjustment factor.¹

Millions

(1)(i) For a PWR:	
greater than or equal to 3400 MWt	\$105
between 1200 MWt and 3400 MWt (For a PWR of less than 1200 MWt, use P=1200 MWt)	\$(75+0.0088P)
(ii) For a BWR:	
greater than or equal to 3400 MWt	\$135
between 1200 MWt and 3400 MWt (For a BWR of less than 1200 MWt, use P=1200 MWt)	\$(104+0.009P)

(2) An adjustment factor at least equal to $0.65 L + 0.13 E + 0.22 B$ is to be used where L and E are escalation factors for labor and energy, respectively, and are to be taken from regional data of U.S. Department of Labor Bureau of Labor Statistics and B is an escalation factor for waste burial and is to be taken from NRC report NUREG-1307, "Report on Waste Burial Charges."

(d)(1) Each non-power reactor applicant for or holder of an operating license for a production or utilization facility shall submit a decommissioning report as required by § 50.33(k) of this part.

(2) The report must:

(i) Contain a cost estimate for decommissioning the facility;

(ii) Indicate which method or methods described in paragraph (e) of this

¹ Amounts are based on activities related to the definition of "Decommission" in § 50.2 of this part and do not include the cost of removal and disposal of spent fuel or of non-radioactive structures and materials beyond that necessary to terminate the license.

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section as acceptable to the NRC will be used to provide funds for decommissioning; and

(iii) Provide a description of the means of adjusting the cost estimate and associated funding level periodically over the life of the facility.

(e)(1) Financial assurance is to be provided by the following methods.

(i) *Prepayment.* Prepayment is the deposit made preceding the start of operation into an account segregated from licensee assets and outside the licensee's administrative control of cash or liquid assets such that the amount of funds would be sufficient to pay decommissioning costs at the time termination of operation is expected. Prepayment may be in the form of a trust, escrow account, Government fund, certificate of deposit, deposit of Government securities or other payment acceptable to the NRC. A licensee may take credit for projected earnings on the prepaid decommissioning trust funds using up to a 2 percent annual real rate of return from the time of future funds' collection through the projected decommissioning period. This includes the periods of safe storage, final dismantlement, and license termination, if the licensee's rate-setting authority does not authorize the use of another rate. However, actual earnings on existing funds may be used to calculate future fund needs.

(ii) *External sinking fund.* An external sinking fund is a fund established and maintained by setting funds aside periodically in an account segregated from licensee assets and outside the licensee's administrative control in which the total amount of funds would be sufficient to pay decommissioning costs at the time termination of operation is expected. An external sinking fund may be in the form of a trust, escrow account, Government fund, certificate of deposit, deposit of Government securities, or other payment acceptable to the NRC. A licensee may take credit for projected earnings on the external sinking funds using up to a 2 percent annual real rate of return from the time of future funds' collection through the decommissioning period. This includes the periods of safe storage, final dismantlement, and license termination, if the licensee's rate-set-

ting authority does not authorize the use of another rate. However, actual earnings on existing funds may be used to calculate future fund needs. A licensee, whose rates for decommissioning costs cover only a portion of such costs, may make use of this method only for that portion of such costs that are collected in one of the manners described in this paragraph, (e)(1)(ii). This method may be used as the exclusive mechanism relied upon for providing financial assurance for decommissioning in the following circumstances:

(A) By a licensee that recovers, either directly or indirectly, the estimated total cost of decommissioning through rates established by "cost of service" or similar ratemaking regulation. Public utility districts, municipalities, rural electric cooperatives, and State and Federal agencies, including associations of any of the foregoing, that establish their own rates and are able to recover their cost of service allocable to decommissioning, are assumed to meet this condition.

(B) By a licensee whose source of revenues for its external sinking fund is a "non-bypassable charge," the total amount of which will provide funds estimated to be needed for decommissioning pursuant to §§ 50.75(c), 50.75(f), or 50.82 of this part.

(iii) A surety method, insurance, or other guarantee method:

(A) These methods guarantee that decommissioning costs will be paid. A surety method may be in the form of a surety bond, letter of credit, or line of credit. Any surety method or insurance used to provide financial assurance for decommissioning must contain the following conditions:

(i) The surety method or insurance must be open-ended, or, if written for a specified term, such as 5 years, must be renewed automatically, unless 90 days or more prior to the renewal day the issuer notifies the NRC, the beneficiary, and the licensee of its intention not to renew. The surety or insurance must also provide that the full face amount be paid to the beneficiary automatically prior to the expiration without proof of forfeiture if the licensee fails to provide a replacement acceptable to the NRC within 30 days

after receipt of notification of cancellation.

(2) The surety or insurance must be payable to a trust established for decommissioning costs. The trustee and trust must be acceptable to the NRC. An acceptable trustee includes an appropriate State or Federal government agency or an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by a Federal or State agency.

(B) A parent company guarantee of funds for decommissioning costs based on a financial test may be used if the guarantee and test are as contained in appendix A to 10 CFR part 30.

(C) For commercial companies that issue bonds, a guarantee of funds by the applicant or licensee for decommissioning costs based on a financial test may be used if the guarantee and test are as contained in appendix C to 10 CFR part 30. For commercial companies that do not issue bonds, a guarantee of funds by the applicant or licensee for decommissioning costs may be used if the guarantee and test are as contained in appendix D to 10 CFR part 30. For non-profit entities, such as colleges, universities, and non-profit hospitals, a guarantee of funds by the applicant or licensee may be used if the guarantee and test are as contained in appendix E to 10 CFR part 30. A guarantee by the applicant or licensee may not be used in any situation in which the applicant or licensee has a parent company holding majority control of voting stock of the company.

(iv) For a power reactor licensee that is a Federal licensee, or for a non-power reactor licensee that is a Federal, State, or local government licensee, a statement of intent containing a cost estimate for decommissioning, and indicating that funds for decommissioning will be obtained when necessary.

(v) Contractual obligation(s) on the part of a licensee's customer(s), the total amount of which over the duration of the contract(s) will provide the licensee's total share of uncollected funds estimated to be needed for decommissioning pursuant to §§ 50.75(c), 50.75(f), or § 50.82. To be acceptable to the NRC as a method of decommissioning funding assurance, the terms of

the contract(s) shall include provisions that the electricity buyer(s) will pay for the decommissioning obligations specified in the contract(s), notwithstanding the operational status either of the licensed power reactor to which the contract(s) pertains or force majeure provisions. All proceeds from the contract(s) for decommissioning funding will be deposited to the external sinking fund. The NRC reserves the right to evaluate the terms of any contract(s) and the financial qualifications of the contracting entity(ies) offered as assurance for decommissioning funding.

(vi) Any other mechanism, or combination of mechanisms, that provides, as determined by the NRC upon its evaluation of the specific circumstances of each licensee submittal, assurance of decommissioning funding equivalent to that provided by the mechanisms specified in paragraphs (e)(1)(i) through (v) of this section. Licensees who do not have sources of funding described in paragraph (e)(1)(ii) of this section may use an external sinking fund in combination with a guarantee mechanism, as specified in paragraph (e)(1)(iii) of this section, provided that the total amount of funds estimated to be necessary for decommissioning is assured.

(2) The NRC reserves the right to take the following steps in order to ensure a licensee's adequate accumulation of decommissioning funds: review, as needed, the rate of accumulation of decommissioning funds; and, either independently or in cooperation with the FERC and the licensee's State PUC, take additional actions as appropriate on a case-by-case basis, including modification of a licensee's schedule for the accumulation of decommissioning funds.

(f)(1) Each power reactor licensee shall report, on a calendar-year basis, to the NRC by March 31, 1999, and at least once every 2 years thereafter on the status of its decommissioning funding for each reactor or part of a reactor that it owns. The information in this report must include, at a minimum: the amount of decommissioning funds estimated to be required pursuant to 10 CFR 50.75 (b) and (c); the amount accumulated to the end of the calendar year

preceding the date of the report; a schedule of the annual amounts remaining to be collected; the assumptions used regarding rates of escalation in decommissioning costs, rates of earnings on decommissioning funds, and rates of other factors used in funding projections; any contracts upon which the licensee is relying pursuant to paragraph (e)(1)(v) of this section; any modifications occurring to a licensee's current method of providing financial assurance since the last submitted report; and any material changes to trust agreements. Any licensee for a plant that is within 5 years of the projected end of its operation, or where conditions have changed such that it will close within 5 years (before the end of its licensed life), or has already closed (before the end of its licensed life), or for plants involved in mergers or acquisitions shall submit this report annually.

(2) Each power reactor licensee shall at or about 5 years prior to the projected end of operations submit a preliminary decommissioning cost estimate which includes an up-to-date assessment of the major factors that could affect the cost to decommission.

(3) Each non-power reactor licensee shall at or about 2 years prior to the projected end of operations submit a preliminary decommissioning plan containing a cost estimate for decommissioning and an up-to-date assessment of the major factors that could affect planning for decommissioning. Factors to be considered in submitting this preliminary plan information include—

(i) The decommissioning alternative anticipated to be used. The requirements of § 50.82(b)(4)(i) must be considered at this time;

(ii) Major technical actions necessary to carry out decommissioning safely;

(iii) The current situation with regard to disposal of high-level and low-level radioactive waste;

(iv) Residual radioactivity criteria;

(v) Other site specific factors which could affect decommissioning planning and cost.

(4) If necessary, the cost estimate, for power and non-power reactors, shall also include plans for adjusting levels of funds assured for decommissioning to demonstrate that a reasonable level

of assurance will be provided that funds will be available when needed to cover the cost of decommissioning.

(g) Each licensee shall keep records of information important to the safe and effective decommissioning of the facility in an identified location until the license is terminated by the Commission. If records of relevant information are kept for other purposes, reference to these records and their locations may be used. Information the Commission considers important to decommissioning consists of—

(1) Records of spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site. These records may be limited to instances when significant contamination remains after any cleanup procedures or when there is reasonable likelihood that contaminants may have spread to inaccessible areas as in the case of possible seepage into porous materials such as concrete. These records must include any known information on identification of involved nuclides, quantities, forms, and concentrations.

(2) As-built drawings and modifications of structures and equipment in restricted areas where radioactive materials are used and/or stored and of locations of possible inaccessible contamination such as buried pipes which may be subject to contamination. If required drawings are referenced, each relevant document need not be indexed individually. If drawings are not available, the licensee shall substitute appropriate records of available information concerning these areas and locations.

(3) Records of the cost estimate performed for the decommissioning funding plan or of the amount certified for decommissioning, and records of the funding method used for assuring funds if either a funding plan or certification is used.

[53 FR 24049, June 27, 1988, as amended at 58 FR 63731, Dec. 29, 1993; 59 FR 1618, Jan. 12, 1994; 61 FR 39301, July 29, 1996; 63 FR 50480, Sept. 22, 1998; 63 FR 57236, Oct. 27, 1998]

EFFECTIVE DATE NOTE: At 67 FR 78350, Dec. 24, 2002, § 50.75 was amended by revising the introductory text of paragraph (e)(1) and paragraphs (e)(1)(i) and (e)(1)(ii), and adding paragraph (h), effective Dec. 24, 2003. For the

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convenience of the user, the revised and added text is set forth as follows:

§ 50.75 Reporting and recordkeeping for decommissioning planning.

(e)(1) Financial assurance is to be provided by the following methods.

(1) *Prepayment.* Prepayment is the deposit made preceding the start of operation or the transfer of a license under § 50.80 into an account segregated from licensee assets and outside the administrative control of the licensee and its subsidiaries or affiliates of cash or liquid assets such that the amount of funds would be sufficient to pay decommissioning costs at the time permanent termination of operations is expected. Prepayment may be in the form of a trust, escrow account, or Government fund with payment by certificate of deposit, deposit of government or other securities or other method acceptable to the NRC. This trust, escrow account, Government fund, or other type of agreement shall be established in writing and maintained at all times in the United States with an entity that is an appropriate State or Federal government agency, or an entity whose operations in which the prepayment deposit is managed are regulated and examined by a Federal or State agency. A licensee that has prepaid funds based on a site-specific estimate under § 50.75(b)(1) of this section may take credit for projected earnings on the prepaid decommissioning trust funds, using up to a 2 percent annual real rate of return from the time of future funds' collection through the projected decommissioning period, provided that the site-specific estimate is based on a period of safe storage that is specifically described in the estimate. This includes the periods of safe storage, final dismantlement, and license termination. A licensee that has prepaid funds based on the formulas in § 50.75(c) of this section may take credit for projected earnings on the prepaid decommissioning funds using up to 2 percent annual real rate of return up to the time of permanent termination. A licensee may use a credit of greater than 2 percent if the licensee's rate-setting authority has specifically authorized a higher rate. However, licensees certifying only to the formula amounts (i.e., not a site-specific estimate) can take a pro-rata credit during the immediate dismantlement period (i.e., recognizing both cash expenditures and earnings the first 7 years after shutdown). Actual earnings on existing funds may be used to calculate future fund needs.

(1) *External sinking fund.* An external sinking fund is a fund established and maintained by setting funds aside periodically in an account segregated from licensee assets and outside the administrative control of the

licensee and its subsidiaries or affiliates in which the total amount of funds would be sufficient to pay decommissioning costs at the time permanent termination of operations is expected. An external sinking fund may be in the form of a trust, escrow account, or Government fund, with payment by certificate of deposit, deposit of Government or other securities, or other method acceptable to the NRC. This trust, escrow account, Government fund, or other type of agreement shall be established in writing and maintained at all times in the United States with an entity that is an appropriate State or Federal government agency, or an entity whose operations in which the external sinking fund is managed are regulated and examined by a Federal or State agency. A licensee that has collected funds based on a site-specific estimate under § 50.75(b)(1) of this section may take credit for projected earnings on the external sinking funds using up to a 2 percent annual real rate of return from the time of future funds' collection through the decommissioning period, provided that the site-specific estimate is based on a period of safe storage that is specifically described in the estimate. This includes the periods of safe storage, final dismantlement, and license termination. A licensee that has collected funds based on the formulas in § 50.75(c) of this section may take credit for collected earnings on the decommissioning funds using up to 2 percent annual real rate of return up to the time of permanent termination. A licensee may use a credit of greater than 2 percent if the licensee's rate-setting authority has specifically authorized a higher rate. However, licensees certifying only to the formula amounts (i.e., not a site-specific estimate) can take a pro-rata credit during the dismantlement period (i.e., recognizing both cash expenditures and earnings the first 7 years after shutdown). Actual earnings on existing funds may be used to calculate future fund needs. A licensee, whose rates for decommissioning costs cover only a portion of these costs, may make use of this method only for the portion of these costs that are collected in one of the manners described in this paragraph, (e)(1)(i). This method may be used as the exclusive mechanism relied upon for providing financial assurance for decommissioning in the following circumstances:

(h)(1) Licensees that are not "electric utilities" as defined in § 50.2 that use prepayment or an external sinking fund to provide financial assurance shall provide in the terms of the arrangements governing the trust, escrow account, or Government fund, used to segregate and manage the funds that—

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(1) The trustee, manager, investment advisor, or other person directing investment of the funds:

(A) Is prohibited from investing the funds in securities or other obligations of the licensee or any other owner or operator of the power reactor or their affiliates, subsidiaries, successors or assigns, or in a mutual fund in which at least 50 percent of the fund is invested in the securities of a licensee or parent company whose subsidiary is an owner of a foreign or domestic nuclear power plant. However, the funds may be invested in securities tied to market indices or other non-nuclear sector collective, commingled, or mutual funds, provided that this subsection shall not operate in such a way as to require the sale or transfer either in whole or in part, or other disposition of any such prohibited investment that was made before the publication date of this rule, provided further that these restrictions do not apply to 10 percent or less of their trust assets in securities of any other entity owning one or more nuclear power plants.

(B) Is obligated at all times to adhere to a standard of care set forth in the trust, which either shall be the standard of care, whether in investing or otherwise, required by State or Federal law or one or more State or Federal regulatory agencies with jurisdiction over the trust funds, or, in the absence of any such care, whether in investing or otherwise, that a prudent investor would use in the same circumstances. The term "prudent investor," shall have the same meaning as set forth in the Federal Energy Regulatory Commission's "Regulations Governing Nuclear Plant Decommissioning Trust Funds" at 18 CFR 35.32(a)(3), or any successor regulation.

(11) The licensee, its affiliates, and its subsidiaries are prohibited from being engaged as investment manager for the funds or from giving day-to-day management direction of the funds' investments or direction on individual investments by the funds, except in the case of passive fund management of trust funds where management is limited to investments tracking market indices.

(111) The trust, escrow account, Government fund, or other account used to segregate and manage the funds may not be amended in any material respect without written notification to the Director, Office of Nuclear Reactor Regulation, or the Director, Office of Nuclear Material Safety and Safeguards, as applicable, at least 30 working days before the proposed effective date of the amendment. The licensee shall provide the text of the proposed amendment and a statement of the reason for the proposed amendment. The trust, escrow account, Government fund, or other account may not be amended if the person responsible for managing the trust, escrow account, Government fund, or other account receives written no-

tice of objection from the Director, Office of Nuclear Reactor Regulation, or the Director, Office of Nuclear Material Safety and Safeguards, as applicable, within the notice period; and

(iv) Except for withdrawals being made under 10 CFR 50.82(a)(3), no disbursement or payment may be made from the trust, escrow account, Government fund, or other account used to segregate and manage the funds until written notice of the intention to make a disbursement or payment has been given to the Director, Office of Nuclear Reactor Regulation, or the Director, Office of Nuclear Material Safety and Safeguards, as applicable, at least 30 working days before the date of the intended disbursement or payment. The disbursement or payment from the trust, escrow account, Government fund or other account may be made following the 30-working day notice period if the person responsible for managing the trust, escrow account, Government fund, or other account does not receive written notice of objection from the Director, Office of Nuclear Reactor Regulation, or the Director, Office of Nuclear Material Safety and Safeguards, as applicable, within the notice period. Disbursements or payments from the trust, escrow account, Government fund, or other account used to segregate and manage the funds, other than for payment of ordinary administrative costs (including taxes) and other incidental expenses of the fund (including legal, accounting, actuarial, and trustee expenses) in connection with the operation of the fund, are restricted to decommissioning expenses or transfer to another financial assurance method acceptable under paragraph (e) of this section until final decommissioning has been completed. After decommissioning has begun and withdrawals from the decommissioning fund are made under 10 CFR 50.82(a)(8), no further notification need be made to the NRC.

(2) Licensees that are "electric utilities" under § 50.2 that use prepayment or an external sinking fund to provide financial assurance shall provide in the terms of the trust, escrow account, Government fund, or other account used to segregate and manage funds that except for withdrawals being made under 10 CFR 50.82(a)(8), no disbursement or payment may be made from the trust, escrow account, Government fund, or other account used to segregate and manage the funds until written notice of the intention to make a disbursement or payment has been given the Director, Office of Nuclear Reactor Regulation, or the Director, Office of Nuclear Material Safety and Safeguards, as applicable, at least 30 working days before the date of the intended disbursement or payment. The disbursement or payment from the trust, escrow account, Government fund or other account may be made following the

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30-working day notice period if the person responsible for managing the trust, escrow account, Government fund, or other account does not receive written notice of objection from the Director, Office of Nuclear Reactor Regulation, or the Director, Office of Nuclear Material Safety and Safeguards, as applicable, within the notice period. Disbursements or payments from the trust, escrow account, Government fund, or other account used to segregate and manage the funds, other than for payment of ordinary administrative costs (including taxes) and other incidental expenses of the fund (including legal, accounting, actuarial, and trustee expenses) in connection with the operation of the fund, are restricted to decommissioning expenses or transfer to another financial assurance method acceptable under paragraph (e) of this section until final decommissioning has been completed. After decommissioning has begun and withdrawals from the decommissioning fund are made under 10 CFR 50.82(a)(8), no further notification need be made to the NRC.

(3) A licensee that is not an "electric utility" under § 50.2 and using a surety method, insurance, or other guarantee method to provide financial assurance shall provide that the trust established for decommissioning costs to which the surety or insurance is payable contains in its terms the requirements in paragraphs (h)(1)(i), (ii), (iii), and (iv) of this section.

(4) Unless otherwise determined by the Commission with regard to a specific application, the Commission has determined that any amendment to the license of a utilization facility that does no more than delete specific license conditions relating to the terms and conditions of decommissioning trust agreements involves "no significant hazards consideration."

US/IAEA SAFEGUARDS AGREEMENT

§ 50.78 Installation information and verification.

Each holder of a construction permit shall, if requested by the Commission, submit installation information on Form N-71, permit verification thereof by the International Atomic Energy Agency, and take such other action as may be necessary to implement the US/IAEA Safeguards Agreement, in the manner set forth in §§ 75.6 and 75.11 through 75.14 of this chapter.

[49 FR 19627, May 9, 1984]

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TRANSFERS OF LICENSES—CREDITORS' RIGHTS—SURRENDER OF LICENSES

§ 50.80 Transfer of licenses.

(a) No license for a production or utilization facility, or any right thereunder, shall be transferred, assigned, or in any manner disposed of, either voluntarily or involuntarily, directly or indirectly, through transfer of control of the license to any person, unless the Commission shall give its consent in writing.

(b) An application for transfer of a license shall include as much of the information described in §§ 50.33 and 50.34 of this part with respect to the identity and technical and financial qualifications of the proposed transferee as would be required by those sections if the application were for an initial license, and, if the license to be issued is a class 103 construction permit or initial operating license, the information required by § 50.33a. The Commission may require additional information such as data respecting proposed safeguards against hazards from radioactive materials and the applicant's qualifications to protect against such hazards. The application shall include also a statement of the purposes for which the transfer of the license is requested, the nature of the transaction necessitating or making desirable the transfer of the license, and an agreement to limit access to Restricted Data pursuant to § 50.37. The Commission may require any person who submits an application for license pursuant to the provisions of this section to file a written consent from the existing licensee or a certified copy of an order or judgment of a court of competent jurisdiction attesting to the person's right (subject to the licensing requirements of the Act and these regulations) to possession of the facility involved.

(c) After appropriate notice to interested persons, including the existing licensee, and observance of such procedures as may be required by the Act or regulations or orders of the Commission, the Commission will approve an application for the transfer of a license, if the Commission determines:

NRC NEWS RELEASE



NRC NEWS

U.S. NUCLEAR REGULATORY COMMISSION

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No. 03-142

November 4, 2003

NRC ISSUES DIRECT FINAL RULE MODIFYING REQUIREMENTS FOR NUCLEAR POWER PLANT DECOMMISSIONING TRUST FUNDS

The Nuclear Regulatory Commission is amending regulations regarding decommissioning trust provisions for nuclear power plants to clarify the agency's intentions and correct administrative errors in a final rule published last year.

The agency is issuing a direct final rule to make immediate corrections in the final rule published December 24, 2002, in the *Federal Register*, which established objectives and criteria for decommissioning trust agreements. That rule required licensees that are no longer rate-regulated, or who no longer have access to government-mandated fees for decommissioning, to have decommissioning trust agreements in a form acceptable to the NRC in order to increase assurance that an adequate amount of decommissioning funds will be available. The rule is to become effective December 24, 2003.

Changes imposed in the direct final rule to be published shortly in the *Federal Register* will clarify that payments for administrative expenses incurred by trust funds do not require notification to the NRC. The direct final rule also clarifies that licensees will have the option to retain their existing license conditions relating to decommissioning trust agreements. Finally, the changes clarify that decommissioning trust funds are not to be invested in other companies that own nuclear power plants.

Because the NRC considers this action non-controversial and routine, the agency is using the direct final rule procedure rather than the lengthier, standard rulemaking process. However, if the NRC receives significant adverse comments within 30 days of the direct final rule's publication in the *Federal Register*, the NRC will publish a document that withdraws this action and will address the comments in a subsequent final rule.

Comments may be submitted to the Secretary, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, Attention: Rulemakings and Adjudications Staff. Comments may also be submitted online through the NRC's interactive rulemaking site at <http://ruleforum.llnl.gov>.

For further information, contact Brian J. Richter, Office of Nuclear Reactor Regulation, at (301) 415-1978, or e-mail to bjr@nrc.gov.

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**PERTINENT PORTION
OF REGULATORY
GUIDE 1.159 (REV.1)**



REGULATORY GUIDE

OFFICE OF NUCLEAR REGULATORY RESEARCH

REGULATORY GUIDE 1.159

ASSURING THE AVAILABILITY OF FUNDS FOR DECOMMISSIONING NUCLEAR REACTORS

Regulatory guides are issued to describe and make available to the public such information as methods acceptable to the NRC staff for implementing specific parts of the NRC's regulations, techniques used by the staff in evaluating specific problems or postulated accidents, and data needed by the NRC staff in its review of applications for permits and licenses. Regulatory guides are not substitutes for regulations, and compliance with them is not required. Methods and solutions different from those set out in the guides will be acceptable if they provide a basis for the findings requisite to the issuance or continuance of a permit or license by the Commission.

This guide was issued after consideration of comments received from the public. Comments and suggestions for improvements in these guides are encouraged at all times, and guides will be revised, as appropriate, to accommodate comments and to reflect new information or experience. Written comments may be submitted to the Rules and Directives Branch, ADM, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001.

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A. INTRODUCTION

The general requirements for applications for license termination and decommissioning nuclear power, research, and test reactors are contained in 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities." This guide provides guidance to applicants and licensees of nuclear power, research, and test reactors concerning methods acceptable to the NRC staff for complying with requirements in the amended rules regarding the amount of funds for decommissioning. It also provides guidance on the content and form of the financial assurance mechanisms in those rule amendments.

Subsequent to the original publication of this guide, amendments to 10 CFR Part 50 were promulgated on September 22, 1998 (63 FR 50465). Various amendments modified 10 CFR 50.33(k), 50.75, and 50.82(b), which require operating license applicants and existing licensees to submit information on how reasonable assurance will be provided that funds are available to decommission the facility. Additional amendments to 10 CFR 50.75 were promulgated on December 24, 2002 (67 FR 78332). As amended, CFR 50.75 establishes requirements for indicating how this assurance will be provided, namely the amount of funds that must be provided including updates, the methods to be used for assuring funds, and provisions contained in trust agreements for safeguarding decommissioning funds.

A proposed Revision 1 to Regulatory Guide 1.159 was developed to reflect these changes in the regulations and to include guidance on the recently proposed amendments to 10 CFR 50.75. The proposed Revision 1 was issued for public comment in May 2001 as DG-1106. This Revision 1 of Regulatory Guide 1.159 also provides explanations and definitions, explains certain concepts that are currently ambiguous, and provides examples of revised guarantee language.

As a guidance document, this regulatory guide and its provisions are not designed to be restrictive or to represent binding requirements. The guide presents methods acceptable to the NRC staff for complying with the decommissioning regulations. The NRC staff recognizes that in certain circumstances (e.g., to meet requirements established by Federal or State economic regulatory agencies or to comply with other applicable laws) other approaches may be necessary. As a point of clarification, it is the NRC's position that those licensees having previously existing license conditions relating to topics covered by the Decommissioning Trust Provisions Final Rule will have the option of maintaining their existing license conditions or submitting to the new requirements (67 FR 78332).

The information collections contained in this regulatory guide are covered by the requirements of 10 CFR Part 50, which were approved by the Office of Management and Budget, approval number 3150-0011. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

these methods in Appendices B-1, B-2, and B-3 of this guide. These sample forms have been provided for general guidance. Specific provisions may not be applicable to particular licensees and may be modified as a licensee's specific situation warrants. NRC expects that all prepayment or external sinking fund mechanisms will, at a minimum, satisfy the following conditions: (a) The instrument will meet the requirements of State law for that instrument, (b) it will provide for the segregation of decommissioning funds from the licensee's other assets, (c) it will ensure that the funds are outside the administrative control of the licensee, (d) it will ensure that special care is taken to safeguard the funds from investment risks, and (e) it will provide safeguards against improper payments from the funds.

The conditions stipulated in 10 CFR 50.75(e)(1)(i) and (ii) that a prepayment account or an external sinking fund, respectively be "segregated from licensee assets" is intended to ensure that the integrity of decommissioning funds will be maintained, especially with respect to protection from creditors in a bankruptcy situation and to ensure continuity of funding during license transfers. A case-by-case "reasonableness" standard will be applied to licensee compliance with this provision. Key indicators of segregation include separation of the funds from the other assets of the licensee through a transfer to an independent custodian or manager and separate accounting. The phrase "segregation from licensee assets" does not require that the fund be placed in an entity, such as a grantor trust, that is established as a separate tax-paying entity. Licensees should be aware, however, that such a trust will provide greater protection in bankruptcy than the escrow or certificate of deposit.

2.2.2 The following key provisions should be included in the trust instrument (or, when relevant, in the escrow or government fund agreement) to ensure that it is acceptable to the NRC:

2.2.2.1 The trust agreement should state the purpose of the trust and the nuclear facility must be identified. An acceptable statement of purpose is the statement required for a trust agreement to qualify as a Nuclear Decommissioning Reserve Fund under Section 468A of the Internal Revenue Code. To qualify under Section 468A, the trust agreement should state that the trust is established for the exclusive purpose of providing funds for the decommissioning of one or more nuclear plants.

2.2.2.2 The trust agreement should specify that the trust fund is established for the benefit of the licensee of the facility and/or the NRC, but only to the extent in the case of the NRC that the provisions of 31 U.S.C. 3302(b) would not be applicable. More than one licensee may be identified. A single trust agreement may establish two or more Nuclear Decommissioning Funds when a nuclear power plant is owned by two or more licensees. Similarly, a trust agreement may contain both qualified and non-qualified decommissioning funds according to IRS Section 468A.

2.2.2.3 The trust agreement should specify the obligations of the trustee and, if applicable, the investment manager with respect to investments, specifically for non-electric utilities as described below under Regulatory Position 2.2.3.

2.2.2.4 The trust agreement should specify the circumstances under which payments will be made from the trust. It must provide that no disbursements or payments may be made from the trust by the trustee, other than for payment of ordinary administrative expenses (examples of ordinary administrative expenses are set out in the Internal Revenue Code Section 468A) or withdrawals pursuant to 10 CFR 50.82(a)(8), until the licensee has first given the NRC 30 working days prior written notice, and that no disbursements or payments from the trust may be made if the licensee receives prior written notice of objection from the Director, Office of Nuclear Reactor Regulation, or the Director, Office of Nuclear Material Safety and Safeguards, as appropriate. As noted in 10 CFR 50.82(a)(8), 3 percent of the generic amount specified in 10 CFR 50.75 may be used for decommissioning planning, and such amounts may be expended during the operating life of a plant without any requirement for written notice to be made. Also, licensees who have submitted the certification required under 10 CFR 50.82 (commencing 90 days after the NRC receives the PSDAR) may use an additional 20 percent without any requirements for notice to be made. After decommissioning has begun, no further notification need be made to the NRC. Withdrawals for those planning purposes are not subject to the prior notice of withdrawal requirements of the new 50.75(h) even though they are expenditures under 50.82(a)(8).

If the trust is a qualified Nuclear Decommissioning Fund under Section 468A, it must provide that the assets in the fund will be used only as authorized by Section 468A and regulations thereunder.

2.2.2.5 For non-electric utility licensees, the trust agreement must specify that amendments to the trust must be executed in writing, and that the agreement cannot be amended in any material respect without 30 working days prior written notification from the licensee to the Director, Office of Nuclear Reactor Regulation, or the Director, Office of Nuclear Material Safety and Safeguards, as appropriate. The trust agreement of an electric utility licensee must follow the requirements for trust amendments as specified in the trusts themselves or in the requisite State regulations.

The NRC defines "material" modifications to include actions such as change of trustee; change to any key provision of the trust, particularly including the investment provisions; change of the provisions related to withdrawals from the trust; changes related to the beneficiary; changes related to the duration or term of the trust; changes that could affect the ability of the trust agreement to provide reasonable assurance of decommissioning funds; and changes to the terms of providing information to the NRC. Modifications that are not material include, for example, changes in fee structures paid to a trustee; changes in arbitration provisions between the trustee and the licensee; changes in investment advisor or

investment manager, if applicable; and changes in investments, provided the changes comply with other aspects of the regulations.

2.2.3 The trust agreement should specify that the trustee's obligations, or obligations of one or more investment managers, with respect to investments include (1) day-to-day management of the trust, guided by general investment instructions provided by the licensee or the licensee's designated investment manager, (2) the obligation of the trustee and/or investment manager to assure that trust investments are made pursuant to an applicable standard of care, whether in investing or otherwise, required by State or Federal law or regulation, or in the absence of such standard, a "prudent investor" standard as set forth in 18 CFR 35.32(a)(3) or any successor regulation, and (3) the obligation of the trustee and/or investment manager, if applicable, to avoid specifically prohibited investments, as described below.

2.2.3.1 The requirement that the trust should not be under the "administrative control of the licensee" will be met if day-to-day investment decisions are made by the trustee or investment manager and not by the licensee. Licensees may exercise general management oversight of trust fund investments to the extent allowed under State trust law. The NRC staff recognizes that licensees have legitimate interests and responsibilities in ensuring appropriate investment strategies for these funds and monitoring the progress of investments and licensees may issue Investment Guidelines to a Trustee or Investment manager. However, licensees should avoid active day-to-day management of these funds. In this regard, if a trustee is unable to act as an investment manager, use of a professional investment manager may be necessary. A licensee or its affiliate may act as an investment manager in the case of passive fund management of trust funds where management is limited to investment tracking market indices. For example, a licensee may maintain a fund that purchases and sells equities in order to track the Standard & Poor's 500 Index. Such passive funds may make direct investments in securities or obligations of the licensee for the trust (or its affiliates) or of other reactor licensees (or their affiliates), provided that such investments are consistent with the requirements to track the applicable index.

2.2.3.2 For non-electric utility licensees, the trust agreement must prohibit investments in securities or other obligations of the licensee (the grantor) or any other owner or operator of any nuclear power reactor as well as their affiliates, subsidiaries, successors, or assigns. An affiliate is any company that controls, is controlled by, or is under common control with the licensee or any other owner or operator of the facility. A subsidiary is any company that is owned or controlled directly or indirectly by the licensee or any other owner or operator of the facility. A successor or assign is a company that has acquired possessory rights to the licensee, the facility, or any other owner or operator of the facility. The trust agreement also must prohibit investments in a mutual fund in which at least 50 percent of the fund is invested in the securities of a licensee or parent company whose subsidiary is an owner or operator of a foreign or domestic nuclear power plant.

2.2.3.3 For non-electric utility licensees, indirect ownership of securities or other obligations of any owners or operators of nuclear power plants through investments in securities tied to market indices or through mutual funds in which less than 50 percent of the fund is invested in the securities of a licensee or parent company whose subsidiary is an owner or operator of a foreign or domestic nuclear power plant is allowed, provided that no more than 10 percent of the total value of the grantor's trust assets may be indirectly invested in the securities of any entity owning or operating one or more nuclear power plants.

2.2.3.4 Investments selected with the approval of or guidance from the State Public Utility Commission (PUC) with jurisdiction over the licensee or from the Federal Energy Regulatory Commission (FERC) would be acceptable to the NRC staff.

2.2.4 The escrow account, certificate of deposit, or trust agreement must comply with applicable State law for such instruments.

2.2.5 The financial assurance instrument, signed by individuals authorized to act for the appropriate parties, should be maintained in the licensee's records and be available for inspection until termination of the Part 50 license. If feasible, records or duplicates should be maintained onsite.

2.2.6 The trustee of a fund should be an entity that has the authority to act as a trustee and whose trust operations are regulated or examined by a State or Federal agency or, if a government fund is being used, the appropriate State or Federal government agency. The word "national" in the title of a financial institution signals that the institution is Federally regulated, as do the initials "N.A.," or the words "National Association," or "a national banking association." The "examinations" department of the appropriate district office of the Office of the Comptroller of the Currency can provide information about whether the institution has trust powers. The word "State" in the title of a financial institution signals that the institution is State regulated. The examinations department of the applicable State banking authority can provide information about whether the institution has trust powers. Domestic branches of foreign banks may be either Federally regulated or State regulated. Eligibility of an institution can be checked through the "Trust Institutions Search" database, at <http://www2.fdic.gov/structur/trust/index.html>.

2.2.7 A trust agreement should include a clause in which the trustee accepts the responsibility of trusteeship.

2.2.8 Annual deposits in an external sinking fund, including projected earnings, should attempt to approximate the total amount remaining to be accumulated, divided by the remaining years of the license, as determined by the initial and updated certification amount specified in 10 CFR 50.75(c)(1) and (2).

Arithmetic precision is not required for fund accumulation rates. If, during the course of collecting funds, a licensee has accumulated significantly greater

decommissioning funds than anticipated, it may reduce its remaining contributions commensurately. Likewise, if a licensee is significantly behind in collections, increased contributions should be used to make up the deficit. A reasonable time may be used to make up any deficit, consistent with good-faith efforts to obtain appropriate rate relief. However, licensees should avoid undue reliance upon contributions weighted in constant dollars toward the end of projected facility operating life. Additionally, the NRC staff considers reliance on an estimated tax deduction for decommissioning expenses at the time such expenses are incurred to be a form of internal reserve and thus not allowed under 10 CFR 50.75(e). If sufficient rate relief by a State PUC or FERC is ultimately not obtained, licensee's stockholders will be expected to cover decommissioning costs through reduced return on equity. Projected rates of earnings on an external sinking fund during plant operation should reasonably approximate the historical real rate of earnings (i.e., after inflation) obtained by a given type of investment.

For decommissioning funds that are prepaid or in external sinking fund accounts, the regulations in 10 CFR 50.75(e)(i)&(ii) allow a credit for projected earnings of up to a 2 percent annual real rate of return (i.e., nominal rate less inflation) from the time of future funds' collection as a factor in calculating the total amount of funds that would be sufficient to pay decommissioning costs. This allowed credit may be greater than 2 percent if a licensee is subject to a rate-setting authority and the authority has specifically authorized a higher rate. The period of time for which the credit may be taken is determined by whether a generic formula or a site-specific estimate with a specified safe storage period is used as the basis for estimating decommissioning costs, as discussed below.

For licensees using a generic formula for decommissioning cost estimates, during the period of plant operation this credit may be taken for the remaining years left on the operating license, and an additional pro-rata credit may be taken into the presumed immediate dismantlement period (i.e., the first 7 years after shutdown) as long as such credit reflects the expected cash flow of expenditures during this period. If license renewal for a plant has been approved by the NRC, the licensee may take the credit during the extended license period.

A licensee using a site-specific estimate may take the allowed credit through the projected decommissioning period, provided that the site-specific estimate is based on a period of safe storage that is specifically described in the estimate. This decommissioning period includes the period of safe storage, final dismantlement, and license termination.

When a licensee adjusts the cost estimate for decommissioning annually pursuant to 10 CFR 50.75(b)(2), the adjusted estimate less amounts already accumulated should form the basis of future collections, which can take into account the allowed credit. Funds already accumulated, plus scheduled fund contributions in the case of those licensees authorized to utilize external sinking funds, plus projected earnings on these funds, should be sufficient to pay decommissioning costs at the time termination of operation is expected, allowing for extending the real rate of return credit into the decommissioning period as noted above.

Actual earnings on existing funds may be used to calculate the needs for future funds. However, pursuant to 10 CFR 50.75(f)(2), when a licensee is within 5 years of the projected end of operations and submits its preliminary decommissioning cost estimate, the licensee may take up to a 2 percent earnings credit (or a higher credit if specifically authorized by a rate-setting authority) over a storage period, as long as the storage period and its cost implications for total decommissioning cost are specifically addressed in the preliminary decommissioning cost estimate.

Licensees who operate multiple modular reactors at a single site may take credit for earnings in such a manner that the assumptions for earnings credit track the cash flows for decommissioning expenses for each module.

2.3 Guarantee Methods

Guarantee methods include surety bonds, letters of credit, lines of credit, and insurance. Acceptable guarantee methods should have the following characteristics.

2.3.1 An applicant or licensee using a surety bond, letter of credit, or parent guarantee may use the sample wording for these methods contained in Appendices B-4, B-5, and B-6, respectively. These sample forms have been provided for illustrative purposes. Specific provisions may not be applicable to particular licensees and may be modified as a licensee's specific situation warrants. However, each licensee should be sure that the instrument being used conforms to applicable State law.

2.3.2 The following documents should be maintained in the licensee's records and be available for inspection by the NRC:

- For surety bonds, an originally signed duplicate or conformed copy of the surety bond signed by individuals authorized to act for the licensee and the surety company.
- For letters of credit, an originally signed duplicate or conformed copy of the letter of credit signed by individuals authorized to act for the licensee and the financial institution.
- For insurance, an original or conformed copy of the insurance policy.
- A standby trust fund to receive funds if the surety, letter of credit, or insurance is drawn upon.

2.3.3 The following should be considered for financial institutions used as guarantors:

- For surety bonds: The surety company must be listed by the U.S. Department of the Treasury in the most recent edition of Circular 570 and have a coverage limit sufficient to cover the cost estimates for